

Abstract

A varactor diode alternative circuit having
at least three varactor diodes that are in each case connected
5 in series alternately opposite to one another and a resistor
network and/or inductor network, which has the effect that

- a) at each of the varactor diodes, a control voltage
supplied to the circuit for adjusting the capacitance is
10 present at least approximately at full extent, and
- b) an alternating voltage that is applied at the series
connection of the varactor diodes, which is at a higher
frequency compared to the control voltage, is distributed
15 preferably at least approximately uniformly to the varactor
diodes.

The varactor diode alternative circuit, according to the
present invention, has the advantage that even for a smaller,
or not larger, or not substantially larger tuning voltage
20 compared to the amplitude of a signal voltage that is to be
processed in the oscillator circuit that has the alternative
circuit, the reactions of the signal voltage on the set
capacitance of the varactor diode alternative circuit remain
negligible, or at least low. Thus, intermodulation
25 interferences are effectively avoided. In addition, the
circuit may be advantageously used in an electrical unit in
which only one small operating voltage is available, for
instance, in a battery-operated unit.

30 Figure 2